

APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000200090026-2

13 JUNE 1980

(FOUO 4/80)

IY

1 OF 1

FOR OFFICIAL USE ONLY

JPRS L/9140

13 June 1980

Worldwide Report

ENVIRONMENTAL QUALITY

(FOUO 4/80)



FOREIGN BROADCAST INFORMATION SERVICE

FOR OFFICIAL USE ONLY

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

For further information on report content
call (703) 351-2811.

COPYRIGHT LAWS AND REGULATIONS GOVERNING OWNERSHIP OF
MATERIALS REPRODUCED HEREIN REQUIRE THAT DISSEMINATION
OF THIS PUBLICATION BE RESTRICTED FOR OFFICIAL USE ONLY.

FOR OFFICIAL USE ONLY

JPRS L/9140

13 June 1980

WORLDWIDE REPORT
ENVIRONMENTAL QUALITY
(FOUO 4/80)

CONTENTS

WORLDWIDE AFFAIRS

Briefs	
Saudi-Japanese Desalination Project	1

ASIA

JAPAN

Nuclear Contamination Discovered at Tokyo University (THE JAPAN TIMES, 13 May 80).....	2
Tougher Automotive Emission Controls for 1982 Planned (ASAHI EVENING NEWS, 29 May 80).....	4

EASTERN EUROPE

CZECHOSLOVAKIA

Environmental Effects of Agricultural Pesticides in CSR (Karel Dirlbek; AGROCHEMIA, Mar 80).....	6
---	---

Briefs	
Dangerous Pesticides	11

USSR

Legislation on Environmental Protection (O.S. Kolbasov; SOVETSKOYE GOSUDARSTVO I PRAVO, Mar 80)	12
--	----

- a -

[III - WW - 139 FOUO]

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

WEST EUROPE

ITALY

Urban, Industrial Pollutants Mounting in Po River
(Roberto Marchetti; CORRIERE DELLA SERA, 26 Apr 80).... 23

-b-

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

WORLDWIDE AFFAIRS

BRIEFS

SAUDI-JAPANESE DESALINATION PROJECT--Virtual agreement was reached Friday on technical assistance which the Japanese Government will furnish to Saudi Arabia in connection with a desalination project. Final agreement is expected shortly, according to a government source. The desalination project calls for the establishment of a materials research institute at a cost of approximately 1,000 million yen, to be shouldered equally by Saudi Arabia and Japan under a 5-year program of cooperation. It also calls for the construction of a test plant capable of purifying 500 tons of fresh water daily by the multistage flush process--a desalination process developed by the Agency of Industrial Science and Technology of the Ministry of International Trade and Industry. [Tokyo MAINICHI DAILY NEWS in English 30 Mar 80 p 5 OW]

CSO: 5000

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

JAPAN

NUCLEAR CONTAMINATION DISCOVERED AT TOKYO UNIVERSITY

OW140504 Tokyo THE JAPAN TIMES in English 13 May 80 p 2

[Text] Four buildings in the University of Tokyo's Institute for Nuclear Study in Tanashi, Tokyo, were contaminated by radioactivity which leaked during an isotope experiment conducted there recently by Kyushu University researchers, it was learned Monday.

A survey by the Science and Technology Agency showed that the buildings had been contaminated by up to 398 microcuries of Californium 252, a radioactive isotope.

The leak occurred while four Kyushu University researchers, using the laboratory 7-28 April, were taking Californium out of its container.

Although institute regulations state that such an operation must be conducted in a separate shielded room, the Kyushu University researchers did not follow the regulations, according to agency officials.

The leak was found Thursday by an institute staff researcher who entered the laboratory room used by the Kyushu University researchers and checked the radioactivity level there.

Agency officials inspected the room Saturday and found that the radioactive substance which leaked from this room had spread to three nearby buildings.

The institute, located near forests and rice fields when it was established in 1955, is now surrounded by apartments, hospitals and schools. The accident seriously shocked the local residents.

The deputy mayor, the city assembly chairman and many other Tanashi City representatives visited the institute for explanation about the accident.

Kenzo Sugimoto, president of the institute, told newsmen that he had trusted the Kyushu University researchers because they had often used the laboratory before.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Since they were responsible for the accident, he said, the institute might decide in consultation with the Science and Technology Agency to prohibit them from using the laboratory hereafter.

Akira Katase, a professor of applied nucleonics at Kyushu University, apologized to the institute at a press conference Monday in Fukuoka.

Katase said that to prevent the recurrence of this kind of accident, the safety committee of his university would review the training given its researchers.

Katase said the four researchers reported to him that they had not detected an abnormal radioactivity level when they checked it at the completion of their experiment.

Katase said that he would meet them in Tokyo shortly to find whether or not their check had been conducted in a proper manner.

COPYRIGHT: The Japan Times, 1980

CSO: 5000

FOR OFFICIAL USE ONLY

JAPAN

TOUGHER AUTOMOTIVE EMISSION CONTROLS FOR 1982 PLANNED

OW301305 Tokyo ASAHI EVENING NEWS in English 29 May 80 p 3

[Text] Yoshihiko Tsuchiya, director-general of the Environment Agency, said Tuesday that from 1982 stronger restrictions would be imposed on the emission of nitrogen oxide from vehicles, as well on noise produced by passenger cars.

The Environment Agency will discuss the date of the implementation of these restrictions with the Transport Ministry and will announce the date in August.

These restrictions follow those on light- and medium-weight cars which were announced in the summer of 1979 and which will affect 1981 models.

The new restrictions call for the reduction of nitrogen oxide in exhaust gas by 32 percent (from 1,100 ppm to 750 ppm) for medium-sized trucks and micro buses, by 25 percent for light trucks (from 1.2 grams to 0.9 grams per kilometer run) and by 15 percent for medium-sized diesel trucks and passenger cars with auxiliary combustion chambers (340 ppm to 290 ppm).

As for engine noise from passenger cars, it is to be reduced from 81 to 78 phons from the 1982 models.

The noise restrictions are being imposed only on passenger cars, and it has not been decided when noise restrictions will be imposed on trucks and motorcycles.

But the organization for economic cooperation and development's noise prevention policy conference held in Paris in the beginning of this month has recommended that stricter noise restrictions be imposed in the 1985-90 period. Consequently, the Environment Agency will have to impose noise restrictions on vehicles other than passenger cars prior to 1985.

The nitrogen oxide exhaust restrictions are the heaviest on medium-sized trucks from two to four tons and micro buses.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

They are not being imposed on the direct injection type large diesel trucks because there is little likelihood of the necessary technical developments being made in the foreseeable future.

A two-type period of grace is expected to be granted to imported vehicles.

COPYRIGHT: Asahi Evening News 1980

CSO: 5000

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

CZECHOSLOVAKIA

ENVIRONMENTAL EFFECTS OF AGRICULTURAL PESTICIDES IN CSR

Bratislava AGROCHEMIA in Czech No 3, Mar 80 pp 87-89

[Article by RNDr Karel Dirlbek, CSc., College of Natural Sciences, Charles University, Prague: "JZD Managers Evaluate the Pesticide-Soil Environment Relationship"]

[Text] From 1975 to 1976 workers of the CEMA Department of the Geographic Institute of the CSAV (Czechoslovak Academy of Sciences) were engaged in carrying out the research task "The methodology of [measuring] human economic and other than economic impact on the environment" in individual JZD's of Czech krajs. The comprehensive study involved individual sectors of socialist large-scale agricultural production. I was invited to evaluate the part of the findings dealing with the application and consumption of pesticides and their impact. Approximately 400 answers received from agricultural cooperatives were processed. Part of the inquiry was designed to determine the size of the pesticide consumption increase which took place in the last decade (1965-1975), the land area percentage treated and the pesticide dose applied per hectare by individual enterprises. Answers reporting deleterious effects of the pesticides and harmful anthropogenic effects especially on the soil were also processed. The data reported by the JZD's together with additional findings can be used as one of the indicators in pinpointing land areas subject to potential harm from agricultural production.

Increased Use of Pesticides

Some respondents avoided answering this question directly, claiming that they had no data from preceding years. Other problems which made answering this question difficult were the amalgamation of JZD's, the increased area under cultivation and the switch to the larger size of pesticide applications due to production specialization. Of six Czech krajs, four report increased use of pesticides by up to 200 percent, in Moravian krajs the upper limit is even higher. The answers received from management workers reveal that in the past decade pesticide consumption increased in individual JZDs from 10 to 400 percent, in one case by 900 percent. In two-fifths of the enterprises, pesticide consumption rose from 1 to 50 percent over the original level, in another two-fifths from 51 to 100 percent

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

and in the last fifth, 101 to 200 percent. These reports came primarily from enterprises located in the Central and East Bohemian krajs and from both Moravian krajs.

Percentage of Agricultural Land Treated With Pesticides

The median percentage of land treated with pesticides reported by the farmers from the various krajs is 60 percent and higher. Determining the upper and lower quartile for all the individual krajs, i.e., determining the values lying in the second or third quartile of all [the krajs] ranked by size, reveals that half the agricultural enterprises in krajs are applying pesticides to agricultural land within the following range:

Kraj	Percentage of agricultural land area
Central Bohemian	from 70 to 85
East Bohemian	from 50 to 80
South Bohemian	from 41 to 70
West Bohemian	from 50 to 81
North Bohemian	from 50 to 100
North Moravian	from 40 to 83
South Moravian	from 60 to 80

In some cases less than half the land area is treated with pesticides, a result of the composition of the crops grown (pastureland, perennial fodder cultures, etc.) in the North Moravian and South Bohemian krajs. In the other krajs the lower quartile reaches the value of 50 percent, in prime agricultural areas such as the South Moravian and Central Bohemian krajs the lower limit is higher, i.e., in these krajs JZDs regularly treat a larger percentage of cultivated land. In the upper quartile the relationship is much more obvious (in hop-, fruit-, sugarbeet- and wine-growing areas), for example in the North Bohemian kraj. An analysis of the farmers' answers reveals further that in all Czech krajs two-thirds of the agricultural enterprises annually treat 50 percent and more of their agricultural land, in four krajs half the enterprises treat 70 percent and more of their land (the East Bohemian, North Bohemian, North Moravian and South Moravian krajs) and in the Central Bohemian kraj, 80 percent and more.

Pesticides Applied Per Hectare

Overall, 82 percent of agricultural cooperatives use pesticide doses of up to 7 kilograms per hectare, 17 percent doses between 70 and 10 kilograms and only 1 percent doses above 10 kilograms per hectare. Krajs with prime agricultural soil growing special crops apply higher pesticide doses:

Central Bohemian kraj:	
up to 7 kilograms per hectare	79 percent of enterprises
from 7 to 10 kilograms	21 percent of enterprises

FOR OFFICIAL USE ONLY

East Bohemian kraj:	
up to 7 kilograms per hectare	83 percent of enterprises
from 7 to 10 kilograms	16 percent of enterprises
North Bohemian kraj:	
up to 7 kilograms per hectare	67 percent of enterprises
from 7 to 10 kilograms	21 percent of enterprises
over 10 kilograms per hectare	12 percent of enterprises
South Bohemian kraj:	
up to 7 kilograms per hectare	75 percent of enterprises
from 7 to 10 kilograms	24 percent of enterprises

Higher pesticide doses are applied selectively to treat some crops (triticum, potatoes, corn, hops and grapevines).

Pesticide Side Effects

According to the farmers' reports (13 percent of the respondents) the danger of harm to insects and bird and furry wildlife is greatest. Three percent of the respondents report instances of damage to subsequent crops and 3 percent report harm to fish. Two percent report harmful effects to soil.

In the comprehensive assessment of the harmful effects 12 percent of the answers put chemization of agriculture in first place. This was the answer of 20 percent of the respondents from the Central Bohemian kraj, of 14 percent from the South Bohemian kraj and 11 percent from the other krajs. Of other factors, seen through the farmers' eyes, only erosion (63 percent of the answers) was identified as a greater danger than the harmful effects of pesticides.

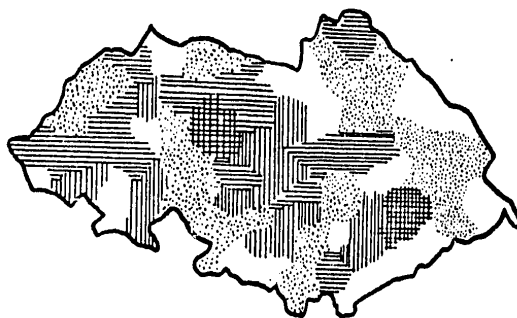
Comparison

The reliability of the answers can be assessed by comparing them with available official data. According to these data the land area treated with pesticides is three times that treated in 1965, which is in agreement with the answers received from the farmers. In the CSR 95 percent of all agricultural land is treated with pesticides.

If only land of the socialist sector is considered then the total land treated in the CSR with pesticides exceeds the above by 1 percentage point. Taking into account the necessary repeat treatment of some crops and selective treatment dictated by pest infestation outbreaks the data reported by the users agree even here with the official data.

FOR OFFICIAL USE ONLY

Figure 1. Approximate agricultural land areas potentially endangered by the use of pesticides reflecting pesticide doses applied per hectare, the size of treated land area and observed deleterious side effects.



Degree of potential harm

- 0 ☐ none
- 1 ☐ negligible
- 2 ☐ small
- 3 ☐ medium
- 4 ☐ maximum

The actual consumption of commercial pesticides in the CSR is around 20,000 tons a year, or about 5 kilograms per hectare. This is also borne out by the farmers' answers. Areas with higher-than-average consumption of pesticides are documented and specified in greater detail in the inquiry than in the general summaries of the official reports. Obviously, the farmers' objective assessment of pesticide side-effects which escapes official notice is also credible because the JZD workers are in close contact with the work environment and are its best judges.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Conclusions

Answers from farmers on the use of pesticides and their side effects observed in individual agricultural enterprises contained in questionnaires sent out by the CEMA Department of the Geographic Institute of the CSAV were evaluated. Over the past 10 years pesticide consumption in individual JZDs increased by up to 200 percent. Generally, agricultural enterprises treat half or more of their land holdings. In the North Bohemian, East Bohemian, North Moravian and South Moravian krajs, half of all JZDs treat 70 percent or more of their land, in the Central Bohemian kraj, 80 percent and more. The average application per hectare is 5 kilograms, in enterprises growing special crops 10 kilograms. Data concerning the harmful effects of pesticide application are evaluated. An assessment of the potential danger of environmental damage can be derived from the amount applied per hectare, the size of treated land areas and the observed harmful effects of pesticides.

COPYRIGHT: ALFA, Bratislava, 1980

8664

CSO: 5000

FOR OFFICIAL USE ONLY

CZECHOSLOVAKIA

BRIEFS

DANGEROUS PESTICIDES--Of the current 435 pesticide products used in Czechoslovak agriculture 39 are classified as "especially dangerous poisons," 118 as "other poisons" and 13 as "caustic." Significantly dangerous to humans are 39 percent of these products. [Prague PRACOVNI LEKARSTVI in Czech No 1, Jan 80 p 33]

CSO: 5000

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

USSR

LEGISLATION ON ENVIRONMENTAL PROTECTION

Moscow SOVETSKOYE GOSUDARSTVO I PRAVO in Russian No 3, Mar 80 pp 69-77

/Article by Doctor of Legal Sciences Professor O. S. Kolbasov, chief of a sector of the Institute of State and Law of the USSR Academy of Sciences: "The Main Directions of Legislation in the Field of Environmental Protection"/

/Text/ In recent years intensive work has been carried out in the USSR on the codification and updating of the legislation concerning the regulation of the use and the protection of the environment. Fundamentals of land, water, timber and mineral resources legislation of the USSR and the union republics, the corresponding republic codes and a large number of additional legal acts with respect to the fundamentals and codes have been adopted.

The 1977 USSR Constitution ratified the most important principles on environmental protection (Articles 18, 42, 67, 73, 131, 147 and others). The drafting of two fundamental bills--on the protection of the atmosphere and on the protection and use of the animal kingdom--is envisaged during the current five-year plan. The decree of the CPSU Central Committee and the USSR Council of Ministers of 1 December 1978, "On Additional Measures to Step Up Environmental Protection and to Improve the Use of Natural Resources," recognizes it as necessary to draft standard statutes on state preserves, natural monuments, botanical gardens, zoos and arboreta, game refuges and natural (national) parks.¹ As a result the development of a set of basic laws, the force of which will cover relations on the protection of practically all the main components of the natural environment--the land, its mineral resources, water, forests, the animal kingdom, the air and natural objects, which are of exceptional scientific or cultural value--apparently will basically be completed by the end of the current five-year plan. At the same time the question of the directions of the further development of conservation legislation in the near and distant future and of the system and content of USSR legislative acts on environmental protection, which are planned in the future, remains urgent.

1. See SP SSSR, No 2, 1979, Article 6.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

The thorough analysis of the developing needs of practice makes it possible to conclude that during the next five-year plan (1981-1985) the main directions of legislation in the area of the regulation of the use of natural resources and environmental protection will be: the completion of the elaboration and the putting into effect of a complete set of additional enforceable enactments of an auxiliary nature, which ensue from the passed fundamental laws (the corresponding fundamentals of legislation and codes); the drafting and passage of two more fundamental laws--the law on the use and protection of natural flora (outside of forests) and an all-union law on the protection of the natural environment.

Additional Enforceable Enactments. The development of a set of additional enforceable enactments will be accomplished by the preparation and issuing of statutes of the USSR Council of Ministers, the councils of ministers of the union and autonomous republics, the executive committees of the kray and oblast soviets, as well as of departmental enforceable enactments--regulations, statutes, instructions, standards and so forth on questions of the use of nature and environmental protection. The elaboration and putting into effect of those additional enforceable enactments, which are stipulated by the corresponding fundamentals of legislation, are of great importance. Thus, Article 13 of the Fundamentals of Land Legislation of the USSR and the Union Republics, which concerns the protection of land and the increase of the fertility of the soil, envisages the possibility of the establishment by legislation of the USSR and the union republics of measures on the economic encouragement of land users for the purpose of stimulating the implementation of measures on the protection of land, increasing the fertility of the soil and involving unused lands in agricultural circulation. The urgency of these questions is unmistakable. Meanwhile, legal acts establishing the economic encouragement of land users in the indicated instances have not been issued. Similar problems require solution as applied to the protection of mineral resources (Article 33 of the Fundamentals of Mineral Resources Legislation) and forests (Article 46 of the Fundamentals of Timber Legislation). In connection with the protection of land the question of assigning lands to categories, which form the unified state land resources (Article 4 of the Fundamentals of Land Legislation), and of the procedure of transferring lands from one category to another is of great importance. Practice has shown that difficulties have arisen here, which are hampering the organization of the rational use and protection of land. Nevertheless they have not been resolved in accordance with standard procedure.

The prevailing legislation still does not contain regulations concerning the restoration of the violated rights of land users. The standards on the liability of offenders do not touch upon this issue. And even if the violators of land legislation are liable for what has been committed, the violated rights of the land users in many instances remain unrestored, that is, no real restoration of the conditions of land use and the state of the land, which existed before the offense, occurs. As is known, the procedure of such land restitution has a number of peculiarities and requires special regulation.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

As to the protection of waters, the question of a system of measures of liability for the violation of the requirements of water legislation has not been completely resolved. The Fundamentals of Water Legislation stipulate, for example, that persons guilty of putting into operation enterprises, municipal or other facilities without structures and devices, which prevent the pollution and contamination of waters or the harmful influence of such facilities, are criminally or administratively liable in conformity with the legislation of the USSR and the union republics. The importance of effectively combating such offenses is obvious. In practice neither the members of the state acceptance commission, who signed the certificates of acceptance for operation of production facilities without the proper purification systems, nor the officials who approved these certificates bear responsibility in the cases in question. The same thing can be said about violations of the water conservation procedure for drainage systems, which cause the pollution of waters, water erosion of the soil and other harmful phenomena, on the unauthorized performance of hydraulic engineering operations, the violations of the regulations of the use of water management structures and devices and the wasteful use of water (which is obtained or diverted from water bodies). The monitoring of the use and protection of forests (Article 9 of the Fundamentals of Timber Legislation) and mineral resources (Article 44 of the Fundamentals of Mineral Resources Legislation), which is implemented by the soviets of people's deputies, their executive and administrative bodies, as well as by state organs especially empowered to do this, has not been regulated in accordance with standard procedure.

It seems expedient to issue an additional enforceable enactment in conformity with Article 33 of the Fundamentals of Mineral Resources Legislation, in which it is indicated that in case of the violation of the requirements on the protection of mineral resources the use of the mineral resources can be limited, halted or prohibited by organs of the State Mine Supervision or by other state organs empowered to do so in accordance with the procedure established by USSR legislation.

There are also other questions which ensue from the fundamental laws of a conservation nature and which require additional standard settlement. Some of them do not pertain directly to environmental protection problems, but are indirectly connected with the latter. In the end all this is impeding the solution of the environmental protection problem in our country. In order to regulate the additional standard legislation in the field of environmental protection in accordance with the procedure of the planning of work on bills for the forthcoming five-year plan a list of questions should be compiled, with respect to which the preparation of government statutes and departmental enforceable enactments would be advisable, with an indication of the type of enactments, the period of the drafting, as well as the ministries and departments responsible for preparing them.

The Law on the Use and Protection of Nonforest Flora. The need to promulgate a law on the use and protection of natural flora (outside of forests) results from the fact that such flora is an important component of the natural environment, but its use and protection so far have been regulated

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

extremely inadequately by the law. At present only that portion of the flora outside of forests, which consists of species of trees and shrubs, is covered to a certain extent by timber legislation.

According to Article 5 of the Fundamentals of Timber Legislation the state timber reserve does not include: trees and groups of trees, as well as arboreal and bushy vegetation on agricultural lands; protective plantings on the rights of way of railroads, highways and canals; trees and groups of trees, as well as landscaping plantings in cities and other population centers, which are growing on lands not occupied by urban forests; trees and groups of trees on private, dacha and orchard plots. The creation of the indicated plantings, their care and use are carried out in accordance with the procedure specified by legislation of the USSR and the union republics. The conservation and protection of windbreak forest belts on the land of kolkhozes and sovkhoses and other windbreak or landscaping arboreal and bushy plantings, which do not belong to the state timber reserve, are ensured by the land users, the appropriate ministries and departments and the executive committees of the local soviets (Article 46 of the Fundamentals).

Persons guilty of the illegal destruction or harm of windbreak forest belts on the lands of kolkhozes and sovkhoses or of other protective or landscaping arboreal and bushy plantings, which do not belong to the state timber reserve, bear the liability, which is established by legislation for destruction or harm of forests of the first group, which are specially protected, if the legislation of the USSR and the union republics does not establish stricter liability for the indicated actions (Article 50 of the Fundamentals). Meanwhile, the nonforest flora consists not only of arboreal and bushy plantings, but also of many types of herbaceous plants, which are of just as great a value to society as are forests. Therefore, the use and protection of nonforest vegetation merit more qualified legal regulation.

At the present stage in the all-union law on the use and protection of nonforest natural flora it is important to establish the most general and fundamental regulations on this question, in particular it is important to define the nonforest natural flora legally as an object of use and protection, having indicated the criteria of its separation from other protected objects, the means and measures of classification and accounting, as well as the procedure of checking (monitoring) short- and long-term changes in its condition. It is expedient to link the regulation of the use and protection of the nonforest natural flora to a certain extent with the regulation of land use, having assigned to the land users duties on the meeting of all the requirements of its rational use and protection, including concern about the protection of the flora against the improper actions of outside persons and organizations.

General regulations on the procedure of grazing livestock, cutting hay, procuring medicinal plants and gathering wild flowers, berries and other fruits and materials and rules on the protection of vegetation during the performance of construction, road and other work, which influences the

FOR OFFICIAL USE ONLY

plant cover of the land, should also be established. It is necessary to establish specific requirements on the protection of rare and especially valuable types of plants, as well as measures on the preservation and restoration of the genetic stock of our flora. In this connection the law can specify the main requirements with respect to the protection of the genetic stock in botanical gardens, arboretums and so forth. Questions of monitoring and liability, as well as of the organization of public activity in the field of relations in question should be reflected in a number of articles of the law. Taking into account the great diversity of the natural and economic conditions of the Soviet Union, which influence the nature of the use and protection of nonforest natural flora, it is expedient for competent organs of the union and autonomous republics, krais and oblasts to regulate in more detail the relations on the use and protection of nonforest natural flora.

As to the conditions of the distant future it is possible to presume that the historically established separate legal regulation of timber relations and relations concerning the use and protection of nonforest natural flora will cease to be a necessity. The real integration of the legal standards in this area will be required, as a result of which horticultural law arises as a unity, which embraces the regulation of all relations on the use, protection and reproduction of all natural flora in the country--both forest and nonforest. Accordingly, the timber legislation will be assimilated by this new field, for the present on the whole the existence of resource fields of the law will be retained. It will be a part of the content of the new field along with all other legislative standards which pertain to natural plant resources.

The Union Law on the Protection of the Natural Environment. The problem of the future union law on the protection of the natural environment for a considerable length of time has been extensively discussed in the press. The need for its promulgation was noted in the reports and speeches of deputies at the sessions of the USSR Supreme Soviet and the supreme soviets of the union republics, as well as at the meetings of their standing commissions. Many specialists, who in practice are linked in their activity with environmental protection, also insist on its passage. The experience of a number of socialist countries, which have passed comprehensive laws on environmental protection--the GDR (1970), Romania (1973) and Hungary (1976)--attests to the expediency of such a law. In Poland the draft of such a law is at the final stage of preparation.²

The problem of protecting the natural environment cannot be solved within the framework of only the natural resources fields of legislation, for it is complex and affects those aspects of life, which are outside the sphere

2. See "Sotsializm i okhrana okruzhayushchey sredy. Pravo i upravleniye v stranakh-chlenakh SEV" /Socialism and Environmental Protection. The Law and Administration in the CEMA Member Countries/, Moscow, 1979, pp 28, 60.

FOR OFFICIAL USE ONLY

of regulation of land, water, mining, timber and other legislation. It is necessary to ensure a comprehensive approach to the problem of protecting the natural environment from the positions of all fields of Soviet law and from these collective positions to regulate the procedure of planning nature conservation measures, monitoring the condition of the natural environment, determining the maximum permissible anthropogenic load on the environment in certain regions or others, establishing and implementing protective requirements of a nature conservation nature in the national economy, introducing in practice measures of the moral and material stimulation of the collectives of enterprises for the conscientious meeting of environmental protection requirements and so for. Therefore, the question consists first of all in determining the main social task, the solution of which should be ensured by the union law on environmental protection, that is, should substantiate scientifically the objective orientation of such a law and its content.

Taking into account the actually achieved level of nature conservation activity in the country, the status of the legislation and the opinions expressed during the many years of discussion, it should be admitted that the assurance of the ecological substantiation of the functioning and further development of the socialist national economy is the main problem, toward the solution of which the union law on environmental protection should be aimed at the present stage. The economic-ecological orientation should be the main orientation in the content of the law. In essence it is necessary to introduce in the national economy a kind of ecological discipline as an integral part of overall economic, production discipline. All the questions of the content of the future law could be grouped in five sections: the general principles and policy of environmental protection; preventive measures in the national economy; the monitoring of the influence on the natural environment; the liability for the violation of the legal requirements of environmental protection; the interrelationship of the domestic and international nature conservation aspects. In the first section the official specification of the goals of the long-range policy of the Soviet Government in the field of the protection of the natural environment should be given, at least the three main aims, which are of fundamental importance for the ecological policy, should be expressed: the barring of the appearance of new causes and sources of the adverse impact of society on nature, the gradual elimination of the existing causes and sources, the gradual improvement of the natural conditions of the country.

It seems expedient to stipulate that the designing, construction and placement into operation of new and renovated enterprises, structures, machines, units and other production and economic facilities are not allowed after this law enters into force or after some other date, if they do not meet the established environmental requirements and may do harm to the environment by their siting, operation or products. This regulation would have a great protective significance, ensuring certainty of the success of the entire matter of environmental protection, for it is well known that it is easier to prevent the adverse influence of production on the environment than to eliminate the consequence of the placement into operation of some

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

facility or of production capacities which have been developed in violation of ecological requirements. Further it should be stipulated that with respect to operating enterprises and other economic and production facilities a policy of gradually limiting the adverse influence on the natural environment by building and putting into operation purification facilities, improving the production technology, changing the type and quality of raw materials and so forth will be implemented.

It is also necessary to state the duty of all state organs, enterprises, institutions and organizations, which are responsible for making and executing economic decisions, and to take into account the possibility of the occurrence of adverse changes in the environment in the near or distant future as a result of the execution of the decisions made by them. This is one of the main ways to ensure the real consideration of the interests of future generations of people in present practice. Such consideration constitutes a fundamental principle of the socialist concept of environmental protection.

In the second section it is expedient to focus attention on questions of sectorial and territorial planning of the development of the economy with allowance made for ecological requirements, the financing and material and technical backing of nature conservation activity. Here it is necessary to take into account the peculiarities of socialist commodity production, which leaves its mark on the process of implementing the ecological requirements. It would be important to sanction the principle of the priority of the goals of environmental protection. In instances when it is not possible to ensure the harmonious combination of the economic impact with the meeting of the requirements of environmental protection, the preservation of the qualities of the natural conditions, on which the possibility of human life on earth depends, should take priority with respect to any economic profit which might be derived from the use of nature.

The question of the moral and material stimulation of the collectives of enterprises, institutions and organizations in the achievement of the goals of environmental protection and the meeting of nature conservation requirements in the production process is extremely important. The decree of the CPSU Central Committee and the USSR Council of Ministers of 1 December 1978, "On Additional Measures to Step Up Environmental Protection and to Improve the Use of Natural Resources," stipulated that when tallying the results of the socialist competition of enterprises and organizations it is absolutely necessary to take into account their fulfillment of the plans and measures on nature conservation, the observance of the standards and regulations of the use of natural resources, the purification and treatment of production wastes. For the failure to fulfill the plans and measures on nature conservation the directors (chiefs, managers), their deputies and the chief engineers of enterprises and organizations, as well as the workers, who are guilty of not fulfilling the indicated plans and measures, are deprived in full or in part of the bonuses in accordance with the main results of the economic activity. The managers and other workers of enterprises and organizations, who are guilty of not observing the standards and regulations on

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

the use of natural resources, are also deprived in full or in part of the bonuses in accordance with the main results of the economic activity. This measure is applied upon representation of the organs which monitor the observance of these standards and regulations. The USSR State Committee for Labor and Social Problems has been commissioned along with USSR Gosplan, the USSR State Committee for Science and Technology and the AUCCTU to establish the procedure of depriving bonuses for the failure to fulfill the plans and measures on nature conservation and for violating the standards and regulations of the use of natural resources. This situation, which is just beginning to be formed, should be lent a universal nature, so that the meeting of the requirements of environmental protection would become one of the standing principles of the entire system of socialist competition in the USSR national economy.

In the law it is expedient to sanction as a comprehensive principle the obligatory nature of the ecological appraisal of the engineering plans of all construction projects, new technologies and new types of substances, materials, machines and consumer goods, which are being produced. It is also necessary to stipulate that the plans of the largest transformations of nature are liable to extensive preliminary discussion by the population, whose recommendations should be carefully reviewed and taken into account by planning organizations. In the law it is expedient to thoroughly define the principle of the banning of the acceptance for operation of newly built and renovated economic and technical facilities, which do not meet the requirements of environmental protection.

In the other sections of the law it is necessary to specify the principles of nature conservation standardization, global observations of the condition of the environment and the forecasting of its probable changes, the principles of state accounting of natural resources and their use, including the performance of cadasters, as well as the principles of state control, monitoring and supervision in the field of environmental protection. The question of the ecological education and training of the population, the participation of the public in environmental protection and the consideration of public opinion on questions of nature conservation activity in the country requires a fundamental legal settlement.

The problems of the liability for violating the legal requirements of environmental protection should be expressed in concentrated form in the law, so that, by relying on it, it would be possible to achieve a great efficiency of the legal measures of combating ecological offenses. It is necessary to specify more precisely the correlation of the types of legal responsibility and the demarcation of the bases of their application in the field in question. It is important to fix legislatively the principles of USSR international cooperation in the field of the protection and improvement of the environment and the rational use of natural resources, which is connected with this, as well as to specify the conditions of the implementation of international environmental law on USSR territory.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Thus, the proposed content of the future union law on environmental protection is distinguished by the fact that here all the attention is focused on the thoroughly interconnected legal regulation of all the aspects of the activity of society, which directly or indirectly affect the condition of the environment. The main thing is to ensure the ecologically sound real behavior of people with respect to the environment in all its complexity and diversity under the conditions of the further intensification of the scientific and technical revolution and social progress.

The Long-Range Prospect of Legislation. Some specialists consider it possible already today to draft and pass a law, which integrates all the questions of the legal protection and use of natural resources and therefore unites completely or to a considerable extent land, water, mining, timber and other natural resource sectorial legislation.³ It is proposed here to take out of the parentheses the general questions of the legal regime of natural objects. In our opinion, such a degree of integration is still premature, for the necessary conditions have not formed for it, while the advantages of the legal regulation of the relations on the use and protection of the main components of nature, which is differentiated by sectors, are still far from exhausted.

Under present conditions, when law in the area of relations in question has been developed unevenly and contains many gaps at various levels of the hierarchy of laws and obsolete standards, which require replacement, while the ecological requirements stemming from the objective laws of nature are poorly expressed in the law, the sectorial method of the legal regulation of the use and protection of natural resources is preferable, while the differentiated development of land, water, mining, timber and other such fields of law is so far the dominant trend.

The tendency toward the integration, or, to put it better, toward the consolidation, of all the fields of law, which regulate the use and protection of nature, is intensifying. But it will become the main direction of the improvement of the law in the field of relations in question only when the current period of the codification of the natural resource fields of law is basically completed, when the lag in the development of some of them is eliminated, a law on environmental protection of the USSR with the content described above is promulgated and the general nature conservation principles are expressed in a quite improved manner in the law. Most likely this will become possible closer to 2000 or after the turn of the second millennium. Then the question of creating a consolidated law on the environment, which integrates all the main standards of the law on the influence of people on nature, including the standards of land, water, mining, atmospheric, horticultural and fauna law, will probably become urgent. The content of this law could be described today only very schematically. It can be

3. See, for example, V. P. Balezin, "On the Question of Natural Resource Law," VESTNIK MOSKOVSKOGO UNIVERSITETA. PRAVO, No 1, 1977, pp 11-19.

FOR OFFICIAL USE ONLY

presumed that a general and a particular part will have to be distinguished in it. The most essential universal principles of the interaction of society and nature will be reflected in the General Part. The specific principles on the use and protection of various types of natural resources will be included in the Particular Part.

In addition to the well-known principles of the policy of the Soviet state in the sphere of the interaction of society and nature, the characterization of the tasks, object and structure of the entire system of legal standards in this field of relations, in addition to the general principles of the right of exclusive state ownership of natural objects and the right of the use of nature, in the General Part of the consolidated law it will be necessary to write about the right of citizens to live under favorable natural conditions (for the social value of the favorable natural environment of people will undoubtedly increase) and to recover the loss caused as a result of an adverse change in these conditions.

Not only the direct legal regulation of the production activity influencing the condition of nature, which is now the dominant element of the ecological legal mechanism, but also the regulation of the factors, which predetermine the direction and scale of the development of physical production, are assuming more and more importance during the present period. People are developing production and influencing nature for the purpose of meeting certain needs of theirs. The nature of production and the degree of its injuriousness to nature to a considerable extent depend on the nature of the needs. At any rate it would be desirable for mankind to eliminate the needs which are not socially justified. Therefore, in the consolidated law it will be necessary to envisage legal measures of the guided formation of human (social) needs with allowance made for the ecological factor, with the view to adjust in this way on a massive historical scale the directions and means of influence of people on nature.

The increasing influence of the scientific and technical revolution on the nature of the interaction of society and nature requires closer social control over the advent and application of new achievements of science and technology. Meanwhile today when evaluating the social value of scientific discoveries and technical innovations, in our opinion, the ecological consequences of their practical application are being taken quite poorly into account, which often leads to serious difficulties in environmental protection. Obviously, this situation should be overcome. Therefore, not only the ecological appraisal of engineering plans, new technologies, new types of substances, materials, machinery and consumer goods, which are produced in our country or purchased abroad, but also the ecological evaluation of scientific discoveries and new achievements of a technical nature as a mandatory preliminary condition of their use in practice should be introduced in practice via the law.

It will also be necessary to devote much more attention than at present to questions of the purposeful transformation of natural conditions and the formation of those qualities of the environment, which will best meet the

FOR OFFICIAL USE ONLY

needs of people on the threshold of communism and later. Consequently this will require the consolidation of the necessary principles and standards in the consolidated law.

The Particular Part of the consolidated law first of all will unite, of course, the legal standards on the use and protection of land, the mineral resources of the land, water, the plant and animal kingdoms, the air, the natural complexes of health resorts and recreational areas, preserves and natural monuments, which today constitute the bulk of the content of the natural resource fields of the law. At the same time in the distant future new questions, which today are still poorly reflected in the law, will require thorough legal regulation. It is a matter, in particular, of stepping up the legal regulation of intentional direct and indirect influences on the weather and climate (the artificial generation of rain, the breakup of hailstorm clouds, the affecting of the ozone layer of the upper strata of the atmosphere, the ionosphere and so forth), of preventing and eliminating adverse physical, chemical, biological, including genetic, factors of the influence on the environment (noise, radiation, vibrations, magnetic fields and so forth), which are incidental elements of useful activity.

Man's penetration of space also requires the development of the legal regulation of the corresponding group of relations. Today these relations are regarded only as an object of international space law. But the need to regulate this sphere of relations by standards of domestic (national) law is also appearing more and more clearly. Hence it can be presumed that the regulations of the use and protection of outer space and space bodies should also be reflected in the consolidated law.

Thus, at some time in the comparatively distant future, when the entire set of the prevailing natural resource fields of the law reaches great perfection in its development and basically fulfills its historical role, a significant reform in the law will occur: the fundamentals of legislation and the codes in the field of the use of nature and environmental protection will be replaced by a unified comprehensive document--the consolidated law on the environment. This will mark the maturity of a new field of law--environmental law, which has emerged on the basis of the integration of the existing and developing natural resource fields of law.⁴ But then the solution of the problem of environmental protection, that is, of the achievement and maintenance of ecological harmony, nevertheless will not, in our opinion, be confined to the framework of only this field of law. Certain legal standards, which express the ecological requirements, will be necessary in other fields--constitutional, administrative, economic, financial, civil and criminal law, if this is required for the solution of the problems of environmental protection from the standpoint of the given fields of law and if they themselves still exist.

4. See the plan of the comprehensive law on environmental protection (the version for the distant future): "Sotsializm i okhrana okruzhayushchey sredy. Pravo i upravleniye v stranakh-chlenakh SEV," pp 382-386.

COPYRIGHT: Izdatel'stvo "Nauka", "Sovetskoye gosudarstvo i pravo", 1980
7807
CSO: 5000

FOR OFFICIAL USE ONLY

ITALY

URBAN, INDUSTRIAL POLLUTANTS MOUNTING IN PO RIVER

Milan CORRIERE DELLA SERA in Italian 26 Apr 80 p 19

[Article by Roberto Marchetti, professor of Ecology at the Università degli Studi, in Milan: "Enough Hydrocarbons Go Into the Po Every Year To Fill Ten Thousand Tank Trucks"]

[Text] Recent incidents have aggravated an already dramatic situation. Into the river flow also 3,000 tons of detergents, 485 tons of lead, 1,550 of copper, 2,600 of zinc and enormous quantities of other discharged pollutants. Cities like Turin, Cremona, Ferrara and Rovigo are receiving water polluted beyond all permitted limits. Gravel pits are endangering the river banks by removing 2 million cubic meters of material a year.

The case of the Po river is only the latest among many that make up the ecological crisis we are in; it is due not only to the damage that the environment may suffer but especially to the fact that public opinion gets stirred up only if events border on catastrophe. The threshold of perception is especially high, and under these conditions of reduced sensitivity it is not easy to single out the many problems that are chronic, frequent, and undramatic and that, taken together, pose the greatest threat to the river.

In the 74,970 square kilometers of the river basin live about 15 million people whose productive activity gives rise to as much pollution as another 39 million people. It is as though for every 80 linear kilometers of river 80,000 people were using it as a sewer and the sea as a septic tank. It is no surprise, then, that lack of purification makes the Adriatic take from the Po in one year a pollution load that the IRSA (Water Research Institute) estimates at 3,000 tons of detergent; 64,000 tons of oil and hydrocarbons (equal to the volume of about 10,000 tank trucks--editor's note); 2,600 tons of zinc; 1,550 tons of copper, 485 tons of lead, 65 tons of mercury; and 110,600 tons of biodegradable substances that consume so much oxygen that the Po delta runs an oxygen deficit of 136,000 tons a year.

In addition to the traditional urban and industrial pollution documented in these data, there is the pollution due to agricultural activity. Successive water divergence and return on the Po reaches a volume calculated at 1,900

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

cubic meters a second. The most worrisome consequences of this activity are measured not by the 6.7 tons of pesticides of various kinds that the Po carries to the sea every year but rather by the presence of BHC and DDT already in the meltwater of the glacier at the source of the river in Pian del Re (2,020 meters above sea level).

This form of chemical contamination is accompanied by severe bacterial and viral infestation. The IRSA investigation showed that in 134 samples, 42 viruses were isolated, among which were the polio and enteritis viruses. If the ministry of Health or the EEC's standards were applied to measure drinking or swimming acceptability, practically no point on the river would be ideal for either of these purposes. However, subchannel or direct-intake aqueducts lead from the Po to Turin, Cremona, Ferrara, Rovigo, and many other, lesser river towns.

We must not underestimate, especially for the future, the possibility of a rise in water temperature due to electric power stations situated on the river (the 260-megawatt Trino nuclear power station, the 840-megawatt station at Caorso, and the thermal stations of La Casella, 1,280 Mw; Piacenza, 780 Mw; and Ostiglia, 1,260 Mw) or on the Po's tributaries. Some 6,280-Mw stations have already been built on the river, and another 5,200 Mw are planned.

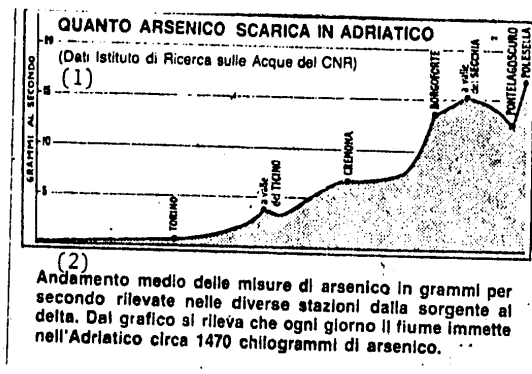
However, these data concern only one of the many problems of the Po. In the river basin there is taking place a disturbing amount of erosion. Some 14 million tons a year of mud, sand, and gravel are transported to the sea, along with 13 million tons of dissolved salts. The natural process of erosion of these materials from the river basin has been speeding up in the last centuries (discharges, channel and bank erosion, etc.), but for about 20 years a sharp lowering of the river bed has been observed. It has been taking place at a steady rate and is due to the quarrying of about 2 million cubic meters a year of sand and gravel on the Po proper and about 4 million cubic meters a year on its tributaries.

It does not seem appropriate here to refer to the problems of water management that are still awaiting a comprehensive solution that might somehow regulate the flow into the Adriatic of 47 billion cubic meters of water a year, a flow that ranges from a minimum of 250 cubic meters a second in drought years to a disastrous maximum of 12,000 cubic meters a second measured at Pontelagoscuro. Up to a few years ago it was considered possible to solve the Po problem at this level. Now these limits have been largely surpassed: the 7,000 tons of phosphorus and 68,000 tons of nitrogen that the river pours into the sea every year act as fertilizers and cause heavy algae blooms along the Emilia-Romagna coast, which subsequently putrefies, harming the fishing and tourist industries--a process called eutrophication. In sum, this is a concatenation of events that ought to suffice to arouse at least as much of an outcry as any catastrophe.

While the Po has been severely compromised, it cannot yet be called a dead river. A direct proof of it is the wealth of fish still present in the water. While notable changes have taken place in the composition and distribution of fish populations, none of the species living in the Po in 1890 has disappeared yet; the original 37 species have increased to 44. This is an impor-

FOR OFFICIAL USE ONLY

tant fact that allows us to say that the patient is very ill but still alive. Action may be taken to save it, but only if the action is immediate and only if the regions and local governments are able to take advantage of the ample room for action given them under water protection laws 319 and 690, among others.



"a valle del" =
'downstream from'

- (1) Amount of arsenic carried to the Adriatic
(Data from the Water Research Institute of the CNR [National Research Council])
- (2) Average flow of arsenic in grams per second measured at various stations from the river's source to the delta. The graph shows that every day the river discharges about 1,470 kg of arsenic into the Adriatic.

COPYRIGHT: 1980 Editoriale del "Corriere della Sera" s.a.s.

8782
CSO: 5000

END

FOR OFFICIAL USE ONLY